Obtaining Ceilometer Configuration

I. Purpose:

The purpose of this procedure is to document how RESET can obtain a configuration file for the Ceilometer.

II. Cautions and Hazards:

None.

III. Requirements:

- Active computer and ceilometer

IV. Procedure:

A. Steps:

1. Determine the port settings.

   NOTE: You can determine the port settings by going to the Settings drop-down menu and selecting "Port settings". (Because the ceilometer is on-line, all the controls will be greyed, indicating you cannot change them, but that's okay since we only want to examine the settings.)

2. Take the data port off-line. (Under "File", select Dataport OFF.)
3. Run a terminal program. This is usually accomplished by clicking on **Terminal** in the menu bar and selecting **Windows Terminal**. (With luck, the TERMINAL.EXE program is properly referenced and will start right up. If not, you will need to search the hard drive for either TERMINAL.EXE or Hyperterminal (which is usually under the Accessories program group). The communications setup is 7 data bits,1 stop bit, even parity, ignore parity, and either 2400 or 9600 baud (turn Xon/Xoff off; no flow control))
4. Once the terminal program is started, hit ENTER a few times. (If the port settings are proper, you should get the CT: prompt back from the ceilometer. If not, you will need to fix the port settings. In TERMINAL you go to "Settings:Communication". In Hyperterminal, I go to "File:Properties", then click the Configure button. Set the port settings to match the values determined earlier.)
5. Once you have the CT: prompt, log in by typing “**open** <enter>” (note: the word **open** is not echoed back so if the ceilometer is doing something you may have to repeat the “**open** <enter>” several times to get through). Eventually, you should receive the Ceilo> prompt.

6. Insert a floppy disk.
7. Activate file capture from the menu bar (“transfer” and “receive text file” for terminal; “screen capture” in hyperterminal) above the terminal window. Then, name the text file in the upper left hand box (cfg_site_CEIyymmdd.txt). Then, select the a: drive in the lower right dialog box. Click OK and begin writing “get” requests below: (note: if this step takes more than about 2 minutes the ceilometer may time out and you will have to start over with the “open” command).
8. Type: CEILO>get algorithm.

   Sample Output:

   - NOISE SCALE: 1.7
   - MINIMUM SUM: 30
   - MINIMUM EXTCO: 6.0
9. Type: CEILO>get data_acq.

   Sample Output:

   - AUTOADJUSTMENTS: OFF
   - DATA-ACQ. INTERVAL: 15 SEC.
   - RECEIVER
   - GAIN: H
   - BANDWIDTH: N
   - SAMPLING RATE: 10 MHz
   - TRANSMI TTER
   - LENGTH OF PULSE: L
   - POWER OF PULSE: 179
   - QUANTITY OF PULSES: 64K
   - COMPENSATION
   - COARSE COMPENSATION: 13
   - FINE COMPENSATION: 125
10. Type: CEILO>get factory

    Sample Output:

    - FACTORY
    - IN POWER: 179

- OUT POWER: 942
- COARSE COMP.: 13
- FINE COMP.: 125
- RECEIVER TEST VALUE: 430
- CLEAN WINDOW: 220mV

11. Type: CEILO>get message

    Sample Output:

    - MESSAGE
    - ANGLE CORRECTION: ON
    - HEIGHT OFFSET: 0
    - NOISE H2 COMPENSATION: OFF
    - PORT: DATA
    - PROFILE SCALE: 100%
    - TYPE: 1
    - UNITS: FEET

12. Type: CEILO>get port

    Sample Output:

    - MAINTENANCE PORT BAWDS: 2400, E71
    - DATA PORT BAWDS: 2400, E71

13. Type: CEILO>get info

    Sample Output:

    - CT25K 1.04 1995-05- 15
    - CTLIB 1.04b 1995-05-09
    - CTCLI 1.01 1995-02-28

14. Type: CEILO>get status

    Sample Output:

    - VOLTAGES (UNIT 0.1V)
    - P12 13() M12 -122 P5G 54 M5G -55 VCA 251
    - P13 129 M13 -123 P5R 50 MSR -49 BAT 138
    - P18 176 PHV 2104 PFB 20 P65 781 CHA 138

      RECEIVER TRANSMITTER

GAIN H PLEN L

BAND N PQTY 64K

SAMP 101vIHz OUT 943Mv

SENS 100% SENS 100%

COMP013 125 IN 179

TEMPERATURES ENVIRONMENT

BLOWER +30C WINDOW 225mV 102%

CPU +35C RADIANCE 6mV

LASER +26C ANGLE –IDEG

LENS +31 C HUMIDITY NONE

OUTSIDE + 19C

INHEATER OFF OUTHEATER OFF BLOWER OFF

14. Type: CEILO>get unit_ID

    Sample output:

    - UNIT ID: 0

15. Type: CEILO>advanced

    (This password gets you into the advanced options)

16. Type: CEILO>get value others angle

    Sample output: ANGLE: 0 DEG

17. Type: CEILO>get value others power_of_p

18. Type: CEILO> get value others radiance

19. Turn off file capture

20. Type “close <enter>” (you should begin to see data begin to stream in 15 seconds).

21. Close the terminal window by clicking on X in upper right corner.

22. Reconnect port by clicking or port icon in vc-view window (you should see backscattering returns being displayed in 15 seconds with a solid red line showing during the time the configuration data were being taken).

23. Send copy of the cfg_siteCEIyymmdd.txt file on the floppy disk to mentor and TWPPO.

V. References:

None.

IV. Attachments:

None.